RAW SEQUENCE LISTING

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Application Serial Number:	10/534.099A
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PATENT APPLICATION: US/10/534,099A TIME: 10:18:51

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Output Set: N:\CRF4\07142006\J534099A.raw

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3 <110> APPLICANT: DE CROMBRUGGHE, BENOIT
            AKIYAMA, HARUHIKO
      6 <120> TITLE OF INVENTION: HA4, A NEW OSTEOBLAST- AND CHONDROCYTE-SPECIFIC SMALL
            SECRETED PEPTIDE, COMPOSITIONS AND METHODS OF USE
      9 <130> FILE REFERENCE: UTSC:772US
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/534,099A
     12 <141> CURRENT FILING DATE: 2005-05-06
     14 <150> PRIOR APPLICATION NUMBER: PCT/US2003/035139
     15 <151> PRIOR FILING DATE: 2003-11-04
     17 <150> PRIOR APPLICATION NUMBER: 60/423,690
     18 <151> PRIOR FILING DATE: 2002-11-04
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     43 ttc ctt gtg ctg ctg ctt cag ttg tcc gca ccg tcc agc gcc tct
     44 Phe Leu Val Leu Leu Leu Gln Leu Ser Ala Pro Ser Ser Ala Ser
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     47 gag aac ccc aag gtg aag caa aaa gcg ctg atc cgg cag agg gag gtg
     48 Glu Asn Pro Lys Val Lys Gln Lys Ala Leu Ile Arg Gln Arg Glu Val
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     51 gta gac ctg tat aat gga atg tgt cta caa gga cca gca gga gtt ccc
                                                                          192
     52 Val Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala Gly Val Pro
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     55 ggt cgt gat ggg agc cct ggg gcc aat ggc att cct ggc aca cct ggc
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     56 Gly Arg Asp Gly Ser Pro Gly Ala Asn Gly Ile Pro Gly Thr Pro Gly
     57 65
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     59 atc cca ggt cgg gat gga ttc aaa ggg gaa aag gga gaa tgc tta agg
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     60 Ile Pro Gly Arg Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys Leu Arg
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     63 gaa age ttt gag gag tee tgg ace eea aae tat aag eag tgt teg tgg
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68 Ser Ser Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala Glu Cys Thr
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71 ttc acg aag atg cgc tcc aac agt gct ctg cga gtt ctg ttc agt ggc
                                                                      432
72 Phe Thr Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe Ser Gly
75 tea ett egg ete aaa tge agg aat gea tge tgt eag ege tgg tat ttt
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76 Ser Leu Arg Leu Lys Cys Arg Asn Ala Cys Cys Gln Arg Trp Tyr Phe
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79 aca ttt aat gga gct gaa tgt tca gga cct ctt ccc atc gaa gcc atc
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80 Thr Phe Asn Gly Ala Glu Cys Ser Gly Pro Leu Pro Ile Glu Ala Ile
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83 atc tat ctg gac caa gga agc cct gag tta aat tca act att aat att
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84 Ile Tyr Leu Asp Gln Gly Ser Pro Glu Leu Asn Ser Thr Ile Asn Ile
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87 cat cgt act tcc tct gtg gaa gga ctc tgt gaa ggg att ggt gct gga
88 His Arg Thr Ser Ser Val Glu Gly Leu Cys Glu Gly Ile Gly Ala Gly
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91 ttg gta gat gtg gcc atc tgg gtt ggc acc tgt tca gat tac ccc aaa
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92 Leu Val Asp Val Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr Pro Lys
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95 gga gac gct tct act gga tgg aat tcc gtg tct cgc atc atc att gaa
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96 Gly Asp Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile Ile Glu
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118 Glu Asn Pro Lys Val Lys Gln Lys Ala Leu Ile Arg Gln Arg Glu Val
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122 Gly Arg Asp Gly Ser Pro Gly Ala Asn Gly Ile Pro Gly Thr Pro Gly
123 65
124 Ile Pro Gly Arg Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys Leu Arg
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126 Glu Ser Phe Glu Glu Ser Trp Thr Pro Asn Tyr Lys Gln Cys Ser Trp
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Input Set : F:\UTSC772US.APP.txt

Output Set: N:\CRF4\07142006\J534099A.raw

231 ccctttcttt tctcacgcct aaaaaaagca acttcttgga gctgcggcta actgcctgat 4140 232 aaatttcact gctgaaacta agtgaattta gcgcgcaggt ttaacgcagt ttcaacttag 4200 233 cccataccaa cetteteegg tacgaatttt etttaattat tttettette catggagete 4260 234 caaaccagca atgettette caaatgteet etgetgttte ecagteeege gttggttege 4320 235 caatetytty aggecageca geggeecaca tytetygytt etageetygy aggtatetty 4380 236 gaatctggaa gagaagaggg aactaggcgg ctcgagagag aatggaacga taatggaacc 4440 237 aagacatcag totgatcaag gttcaatttt actatttgga gacactgggt tatgaagtag 4500 238 agggagggc ccattectgc caaatcatec ttggagteca gtttcaggtg accaegtgtt 4560 239 ggctccggaa cagctaggcc gcaggtagca gcagtgggag tgacaggctc cacccctgat 4620 240 getetnttag ecetaacagt caaacetgat cagecagatt teaggetggg ggggaggtta 4680 242 attgagacag gaatttgctg tgtagccttt attgtcttgg aatttgctct gtaaactagg 4800 243 ctgtccatga actcacagag atctacctgc ctttgcctcc ctagtgctgg ggttaaaggt 4860 244 gttcaccacc accacctagc ccataatctc atattctatc aagggattta ggttccataa 4920 245 atgcacttat cataagaggt tccaacagat ggaacacaac tacacagtat aaggtggact 4980 246 aatacatgtg tgtccttggt gaagaatccc ttatcttatg tcctttcatg tgcttgcttt 5040 247 atcaaaacat cctttcacct gtgtctgctt taggataaca ctccttcaca tgtttgccac 5100 248 agcaaagcac catcagacac gactgacttt ccaaagaacc cttaagtttc cacttcagat 5160 249 aggcatcttc ttctttaggt taagaaaatt tttttcctgt cactctgtgg aaaatatttt 5220 250 etgtgcattt gacetgtgtt tetteteett eettaattet tattttagat ttggteaett 5280 251 cacagigtcc cagatiticci ggatgttttg aaccaggagt tattittaga tigaacattt 5340 252 tettigacet atgtatteat tiettetace atgtetteag tgtetgagat tetettttt 5400 253 aattettgaa ttetgttggt gaagettgee tetgtggttg etgtteaaat teetatattt 5460 254 tcatttccat atttccctca gtttggggtc tctttattaa ttctgttgga ggaagggggt 5520 255 ccaggagtca cctcacaaat cacatattcc caggattgat tgatcaggac caccggccag 5580 256 actcaggagc tgaactgtga tgtagagtca agatcctaca gggcttttaa agcctgagag 5640 257 ctataataac catctctgct aagttactcc accaatcata acttagggat agggctttct 5700 258 gtaggagcat qtctttqttg tgtacttatt ttgctcctat tggttagggt attcaactat 5760 259 ggcagaggac ttgcctcatc ttatattcat gtcttagctt gccaaccagg atatcagttt 5820 260 tccacataca tgtctctttc tgtcaagtag gatatcaagt tcccagggag gtcttggaaa 5880 261 cctaaacttt attctgcccc tactcaaaat ggaagtctta ttctaaatag gtacaggtgt 5940 262 ctctcttatg ttgggatcca tcccaagggc agcttaaaag gcaaatacta taaaggctga 6000 263 tacacaggtg cagaaagtgt tggtttctga gaacatccta gtaacagaag taacagcata 6060 264 tgagaaagtt teettgtgat attaggaaca geacaaactg gtaggttaga egggtaacag 6120 265 ttaccaagac cttaacaatc ccagttcctc tttcaggtct tgagtggctg tattcctttc 6180 266 cttccattgt ttgtgctttc atagacttct ttaagggatt taatgttttc tttttaagga 6240 267 cctctagcat acacatatag gctgtgttaa ggtctttatg tgtgcttcca gggtgtaata 6300 268 ctcagggcct gctgtgatag ggttggtggg ttctagtgga gacctatcgt cctggctgta 6360 269 attggttgtg caggggtagc ctgtaggttc ccaatgagtg tgtgcctgag ctggatgctt 6420 270 gggaaaaaca ttgagtgacg ggaggaaagt ggggggccag ggatctgtat gcttcactga 6480 271 agatgggtgc agaagcagcc tagggctgag actgaggggt tccactctga gaagcagagg 6540 272 gagaggtgaa gatctgcagt tagcccacct gcgtccctgc ccagtgtggc ctgtgggttc 6600 273 ccagggagtg ccggctggag ttgggggtgg agggtaggac agggcaatga gtgggggaag 6660 274 ggaatttagg aggggaagat ctgtgggatc caccagcgat gaggtggctg tggtggaagc 6720 275 cgctgcagga gttagcgcag agctcaggat gaaactaggg attgggcgtg gaggaatgga 6780 276 gggagcgtgg aggtcgcctc tccctctccc tggataggta ggtcacccat ttgcttcccg 6840 277 tcagagagtg cctaagagag ttggaggctg ctttcctggt tgaagttgga tagaactttt 6900 278 caaactatat taatctgatg tgaaataagc acgtgaaagt gaacctccag cactgaatgt 6960 279 tggctatttt ctaccagcct cagttcacct atgaatggag actccaggct gcatcgtccc 7020 RAW SEQUENCE LISTING ERROR SUMMARY DATE: 07/14/2006 PATENT APPLICATION: US/10/534,099A TIME: 10:18:52

Input Set : F:\UTSC772US.APP.txt

Output Set: N:\CRF4\07142006\J534099A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 265,1987,2010,2018,2032,2339,2355,2375,2383,2436,2955,2959 Seq#:3; N Pos. 2962,2998,4626,8255,18422,18460,18464,18484,18495,18508 Seq#:3; N Pos. 18520,18524,18560,18570,18571,18576,18591,18594,18610,18613 Seq#:3; N Pos. 18614,18619,18632,18633,18634,18635,18636,18637,18638,18639 Seq#:3; N Pos. 18640,18641,18642,18643,18644,18645,18646,18647,18648,18649 Seq#:3; N Pos. 18650,18651,18652,18653,18654,18655,18656,18657,18658,18659 Seq#:3; N Pos. 18660,18661,18662,18663,18664,18665,18666,18667,18668,18669 Seq#:3; N Pos. 18670,18671,18672,18673,18674,18675,18676,18677,18678,18679 Seq#:3; N Pos. 18680,18681,18682,18683,18684,18685,18686,18687,18688,18689 Seq#:3; N Pos. 18690,18691,18692,18693,18694,18695,18696,18697,18698,18699 Seq#:3; N Pos. 18700,18701,18702,18703,18704,18705,18706,18707,18708,18709 Seq#:3; N Pos. 18710,18711,18712,18713,18714,18715,18723,18735,18855

VERIFICATION SUMMARY

DATE: 07/14/2006 TIME: 10:18:52

PATENT APPLICATION: US/10/534,099A

Input Set : F:\UTSC772US.APP.txt Output Set: N:\CRF4\07142006\J534099A.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application Number

L:167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:240

M:341 Repeated in SeqNo=3